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(54) **USE OF BORATE-POLYOL COMPLEXES IN OPHTHALMIC COMPOSITIONS**(75) Inventors: **Masood Chowhan**, Arlington, TX (US); **Nissanke L. Dassanayake**, Arlington, TX (US)(73) Assignee: **Alcon Manufacturing, Ltd.**, Fort Worth, TX (US)

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(63) Continuation of application No. 09/597,310, filed on Jun. 20, 2000, now Pat. No. 6,365,636, which is a continuation of application No. 09/109,453, filed on Jul. 2, 1998, now Pat. No. 6,143,799, which is a division of application No. 08/479,281, filed on Jun. 7, 1995, now Pat. No. 5,811,466, which is a division of application No. 08/198,427, filed on Feb. 22, 1994, now Pat. No. 5,505,953, which is a continuation-in-part of application No. 08/118,833, filed on Sep. 7, 1993, now Pat. No. 5,342,620, which is a continuation of application No. 07/879,435, filed on May 6, 1992, now abandoned.

(51) **Int. Cl.⁷** **A61K 9/00; A61K 9/08**(52) **U.S. Cl.** **424/78.04; 424/427; 514/912; 514/839; 514/840**(58) **Field of Search** **424/78.04, 427; 514/912, 839, 840**(56) **References Cited****U.S. PATENT DOCUMENTS**

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(57) **ABSTRACT**

Water-soluble borate-polyol complexes are useful as buffers and/or antimicrobials in aqueous ophthalmic compositions, including those containing polyvinyl alcohol. These compositions have greater antimicrobial activity than comparable compositions containing typical borate buffers and unexpectedly increase the antimicrobial efficacy of other antimicrobial agents when used in combination. In addition, use of the boratepolyol complexes avoids the incompatibility problem typically associated with the combination of borate buffer and polyvinyl alcohol; therefore, the compositions disclosed herein may also contain polyvinyl alcohol.

45 Claims, No Drawings